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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/791,326

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James J. Wang

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K.F. ROSS P.C.
5683 RIVERDALE AVENUE
SUITE 203 BOX 900
BRONX, NY 10471-0900

EXAMINER

HELM, CARALYNNE E

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/791,326	Applicant(s) WANG ET AL.	
	Examiner CARALYNNE HELM	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2009 and 06 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25, 28 and 35-47 is/are pending in the application.
- 4a) Of the above claim(s) 37-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25, 28, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

To summarize the current election, applicant elected Group II drawn to a hybrid silicone composite powder composition. Based upon this election, claims drawn to methods of preparation, silicone gels, glycerine gels, and topical cosmetics, claims 37-47, are withdrawn from consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The four factual inquiries of *Graham v. John Deere Co.* have been fully analyzed and considered in the rejections that follow.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 25, 28, and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finberg (EP0315836) in view of Halloran et al. (US Patent No. 5,173,290), Lamaze et al. (US Patent No. 7,256,232), and Sanders et al. (US Patent No. 6,706,405)

Finberg teaches a particle composition composed of an interpenetrating network of at least two polymers that are not crosslinked to each other (see page 2 lines 5-7; instant claim 25). Further Finberg teaches that the composition can be formed via suspension, yielding small (spherical) particles, or formed into beads (see page 3 lines 11-14; instant claim 25). The invention is taught to include polydimethylsiloxane as one polymer and the second polymer is not limited to any particular polymer (see page 4 lines 17-20 and 28-29; instant claim 25). Finberg does go on to teach the proportion of the polydimethylsiloxane to the other polymer in the system to be approximately 1:1 (see table 1; instant claim 28). Although a particular particle dimension is not specifically

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taught by Finberg, one of ordinary skill in the art would have found it obvious to optimize this parameter as a matter of routine experimentation in order to address the end-use needs of the product. Finberg does not teach polymethylsilsesquioxane specifically as the second polymer.

Halloran et al. teach that interpenetrating polymer networks provide a mechanism in addition to physical blending a copolymerization, to physically combine different polymers (see column 8 lines 30-38). They go on to teach that unique properties can result when these types of blends are produced (see column 8 lines 38-49). Further, in their invention Halloran et al. teach the presence of a silsesquioxane polymer in an interpenetrating network (see column 4 lines 11-25; instant claim 25). Sanders et al. also teach an interpenetrating polymer network that includes both a silsesquioxane, where polymethylsilsesquioxane is envisioned, and a linear siloxane where polydimethylsiloxane is envisioned (see column 4 lines 14-18, column 5 lines 1-16 and lines 55-59; instant claim 25). In addition, Lamaze et al. teach a composition where polymethylsilsesquioxane and polydimethylsiloxane are specifically taught as a desired combination. Since it was known to blend these two siloxane polymers, each was known to be able to be included in an interpenetrating network, and the production of such a network was a known option for blending the two, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select polymethylsilsesquioxane as the second polymer to include with polydimethylsiloxane in the particle taught by Finberg.

Instant claims 35-36 are product-by-process claims that add no structural limitations to the claimed product. According to MPEP 2113, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.’ In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).” Therefore the limitations of these claims are automatically met when the limitations of the actual product are met (e.g. instant claim 25). Therefore claims 25, 28 and 35-36 are obvious over Finberg in view of Halloran et al., Lamaze et al., and Sanders et al.

Response to Arguments

Applicant’s arguments, filed January 6, 2008 and February 3, 2009, have been fully considered and are not persuasive.

It is respectfully noted that throughout the arguments presented, Applicant discusses the intended use of the claimed product and the cited prior art references teaching different utilities than those claimed. The intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this instance, the structure made obvious by the prior art references would be capable of

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performing the intended use. Therefore these arguments regarding the intended use of the claimed powder do not overcome the prior art.

The four references cited in the rejection provided teachings that render obvious the claimed invention:

- Finberg et al. is the primary reference teaching that particles composed of interpenetrating networks of polydimethylsiloxane and a second polymer were known at the time of the invention.
- Halloran et al. provides teachings that interpenetrating networks have desirable properties that differ from blends and that silsesquioxane polymers were known to be included in interpenetrating polymer networks.
- Sanders et al. teaches that the combination of silsesquioxane polymers and linear siloxane polymers in interpenetrating was known at the time of the invention. Further, polymethylsilsesquioxane and polydimethylsiloxane are included in the genus of these two polymers that are envisioned in the network.
- Lamaze et al. teaches that the combination of polydimethylsiloxane and polymethylsilsesquioxane, in particular, in a single preparation was known at the time of the invention.

Taken together, Halloran et al., Sanders et al., and Lamaze et al. would have led one of ordinary skill in the art at the time of the invention to select polymethylsilsesquioxane as the second polymer to include with polydimethylsiloxane in the invention of Finberg et

al. Such a combination was known in the art in general and specifically within the context of interpenetrating polymer networks.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Several arguments by applicant discuss the unsuitability of the individual inventions taught by each reference for the claimed intended use. The rejection presented did not suggest that the inventions of the individual references singularly met the limitations of the claims, so these arguments do not dispute the combination of references that was argued. Although the arguments against the references individually are not persuasive, several of these arguments are nevertheless discussed below.

Regarding the Finberg et al. reference, applicant argues several interpretations of the reference that were made. Applicant argues that Finberg et al. requires that the second polymer be organic and that polymethylsilsesquioxane is not an organic polymer. On page 4 in lines 28-29 of the reference, Finberg et al. recite "...the invention is not limited to any particular second polymer or subsequent polymer..." Thus the interpretation that any polymer is suitable as the second polymer in the invention of Finberg et al. follows from this recitation. In addition, the discussion of organic polymers as the second polymer does not require that the backbone of the polymer be organic. Polymethylsilsesquioxane contains organic groups in the polymer chain, therefore it would be reasonable to classify it as an organic polymer. Applicant also argues that the

composition of Finberg et al. is a liquid that cannot be used to produce fine micro spherical powders. Finberg et al. in fact teach that their interpenetrating network composition can be produced as dried beads and that its polymerization reaction can be carried out in suspension (see page 3 lines 11-14). Tuncel teaches suspension polymerization as a methodology to produce spherical beads (Colloid and Polymer Science 2000 278:1126-1138) and DeGrazia et al. teach that suspension polymerization can be used to produce spherical particles of interpenetrating networks (Journal of Applied Polymer Science 1995 55:793-805). Therefore applicant's assertion that spherical micro spherical powders cannot result from the invention of Finberg et al. is not accurate.

Regarding the Halloran et al. reference, applicant argues that their composition is not an interpenetrating network as claimed. These assertions on the part of applicant are not supported by evidence disputing the teachings of Halloran et al. Both the instant invention and Halloran et al. recite interpenetrating networks that utilize polymethylsilsesquioxane, therefore the Halloran et al. reference is pertinent prior art that one of ordinary skill in the art would have relied upon for guidance.

Regarding the Sanders et al. reference, applicant argues that the linear siloxane polymer and production methodologies taught are different than the instantly claimed invention. Since applicant is claiming a product, the differences in the method of production of prior art compositions and that claimed, which add no method-dependant structure, are immaterial to the product. Like applicant, Sanders et al. teach polydimethylsiloxane as a polymer along with polymethylsilsesquioxane in an

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interpenetrating network. Neither applicant's claims nor the teachings Sanders et al. address the linearity of the interpenetrating network formed. So applicant's highlighting of this omission does nothing to negate the teachings of Sanders et al.

Finally, applicant's characterization of the combination of references is divergent from the arguments that were presented in the rejection. In particular, Halloran et al. Sanders et al., and Lamaze et al. were used together as supporting references for Finberg et al. (the primary reference) to demonstrate the knowledge of silicone containing polymers in combination within one another and specifically in interpenetrating networks. Unlike applicant's description of the shortcomings of pairs of these references, the four references together do render obvious the claimed invention

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The rejections and/or objections detailed above are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Response to Declaration

Applicant's declaration submitted January 6, 2009 has been fully considered but is not persuasive.

Applicant has provided a comparative study of the viscosity of compositions that result from the combination of various particle preparations with a cyclopentasiloxane fluid. Applicant contends that this data refutes the combination of Lamaze et al. with the other three references. The data provided show the results of particles of the claimed

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invention, polydimethylsiloxane (PMS) particles and polymethylsilsesquioxane (PMSQ) particles together, and polydimethylsiloxane particles. The viscosity of the composition with the particles of the invention is much higher than that of the other two compositions. Applicant posits that this is an unexpected result. Based upon applicant's disclosure, the addition of these particles to the cyclopentasiloxane fluid results in the particles absorbing the fluid and swelling (see page 10 lines 3-9). No discussion is given of particle dissolution so it is presumed that this viscosity effect is due to the particles taking on the surrounding fluid. Therefore it is unclear why one would expect two separate populations of different polymer particles to absorb silicone fluid and behave the same as a single population of particles composed of both polymers (at some unknown ratio) that has absorbed the same fluid. The two populations of particles have completely separate properties and likely respond to the silicone fluid very differently. For example, it is clear that the PMSQ particles have a different interaction with the silicone fluid than the PMS particles based upon the decrease in the viscosity that results when 10% PMSQ particles are present with the PMS particles as compared to when only PMS particles are present. Furthermore, applicant has not established an expected outcome to serve as a basis for their comparison.

Conclusion

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARALYNNE HELM whose telephone number is (571)270-3506. The examiner can normally be reached on Monday through Thursday 8-5 (EDT).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caralynne Helm/
Examiner, Art Unit 1615

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615